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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,921	10/15/2003	Klaus Rudolf	1/1403	7069
28501	7590	12/05/2006	EXAMINER	
MICHAEL P. MORRIS BOEHRINGER INGELHEIM CORPORATION 900 RIDGEBURY ROAD P. O. BOX 368 RIDGEFIELD, CT 06877-0368			HABTE, KAHSAY	
			ART UNIT	PAPER NUMBER
			1624	
DATE MAILED: 12/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

TH

Office Action Summary	Application No. 10/685,921	Applicant(s) RUDOLF ET AL.	
	Examiner Kahsay Habte	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-14 are pending in this application.
2. Upon further review of this case that was handled by Examiner Johnsen who left the Office, it was deemed necessary to raise new issues that need further rejection.

Response to Amendment

3. Applicant's amendment filed 5/19/2006 in response to the previous Office Action (11/23/2005) is acknowledged. Rejections of claims 1-14 under 35 U.S.C. § 112, second paragraph have been obviated. The prior art rejection under 102(b) is also obviated by applicant's amendment. The 103(a) rejection, the obviousness-type double patenting rejection and the enablement rejection have been maintained. The examiner also raises new issues that need further rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the treatment of migraine or cluster headaches, does not reasonably provide enablement for prophylactic (prevention) of migraine or cluster headaches. The specification does not enable any person skilled in the art to

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which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. In claim 14 it is recited a method of prophylactic (i.e. prevention) of migraine or cluster headaches, but the specification is not enabled for such a scope.

See previous rejection made by Examiner Johnsen for details.

Response to arguments

Applicant's argument filed 5/19/2006 has been fully considered but it is not persuasive.

Applicants argue that the "prophylaxis or reduction in the frequency of migraine or cluster headache by medication is quite well established in the medical literature...There is no reason to suppose that the compounds of formula I can not be used for prevention or prophylaxis in the same manner (dosage) that they are to be used for treatment". The examiner disagrees with applicant's argument. A method of prophylaxis of migraine or cluster headache means the prevention of a healthy person from getting migraine or cluster headache in the first place. To this day, the only drugs available are for the treatment of patients who suffer from migraine or cluster headache and not the prevention of a healthy person from getting said diseases in the first place. Applicants own specification does not support this. It is recommended that applicants delete "acute or prophylactic" from claim 14 to overcome this rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klaus et al. U.S. Pat. No. 6,344,449. Cited reference teaches specific compounds and compositions of formula (I) as well as a general formula encompassing the instant application, and a method of using said compounds and compositions to treat headaches. Specifically, cited reference at column 54 teaches two compounds of interest that are almost the same as applicants when applicant's formula (I) has the following substituents:

R^1 = 2-oxo-3(2H)-quinazolinyl; A = O; X = N; R^2 and R^3 forms piperazine (Y = N); R^4 = pyridinyl, 1-methyl piperidinyl; and Y = CF_3 (see compound 463 and compounds 476 at column 54 or see page 2 of the previously attached STN printout that shows these two compounds). The only difference between applicant's formula (I) compounds and

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the prior art compounds is in the definition of Z. Applicants define Z as alkyl that can be substituted up to 2 fluorine atoms and each methyl may be substituted by up to 3 fluorine atoms (i.e. CF₃). The first two prior art compounds disclosed at column 54 (i.e. compound 463 at lines 14-15 and compound 476 at lines 53-56) are the same as applicant's since they have two CF₃ substituents on the meta positions of the phenyl group (i.e. they are at 3,5-positions of the phenyl group). Applicants require at least two CF₃ substituents on the ortho positions (i.e. 4,5-positions) of the phenyl groups. Thus, the only difference between applicants and the prior art compounds is the position of the CF₃ group. These are position isomers. It is well established that position isomers are prima facie structurally obvious even in the absence of a teaching to modify. The isomer is expected to be preparable by the same method and to have generally the same properties. This expectation is then deemed the motivation for preparing the position isomers. This circumstance has arisen many times. See: *Ex parte Englehardt*, 208 USPQ 343, 349; *In re Mehta*, 146 USPQ 284, 287; *In re Surrey*, 138 USPQ 67; *Ex Parte Ulliyot*, 103 USPQ 185; *In re Norris*, 84 USPQ 459; *Ex Parte Naito*, 168 USPQ 437, 439; *Ex parte Allais*, 152 USPQ 66; *In re Wilder*, 166 USPQ 545, 548; *Ex parte Henkel*, 130 USPQ 474; *Ex parte Biel*, 124 USPQ 109; *In re Petrzilka*, 165 USPQ 327; *In re Crownse*, 150 USPQ 554; *In re Fouche*, 169 USPQ 431; *Ex parte Ruddy*, 121 USPQ 427; *In re Wiechert*, 152 USPQ 249, *In re Shetty*, 195 USPQ 753.

For example, "Position isomerism has been used as a tool to obtain new and useful drugs" (*Englehardt*) and "Position isomerism is a fact of close structural similarity" (*Mehta*, emphasis in the original). See also MPEP 2144.09, second paragraph.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings above to obtain the compound as claimed in the instant application. All of the moieties, which are substituted in the instant application, are taught in the art, and the locations of substitution are correlative with the locations of substitution in the art. Obviousness based on similarity of structure and functions entails motivation to make the claimed compound in expectation that compounds similar in structure will have similar properties; therefore, one of ordinary skill in the art would be motivated to make the claimed compounds in searching for new CGRP antagonist compounds (MPEP 2144.09).

Response to arguments

Applicant's argument filed 5/19/2006 has been fully considered but it is not persuasive.

Applicants indicate that they are "stand ready to show by way comparative test data" to show unexpected result. Since there was no such data, the rejection has been maintained.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 10/755,593. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because there is significant overlap between the subject matter of these two applications.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to arguments

Applicant's argument filed 5/19/2006 has been fully considered but it is not persuasive.

Applicants request that the provisional rejection be maintained in the present application until there are no other rejections remaining.

Claim Objections

8. Claims 12-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 12-14 should refer back to the claims 1-11 in the alternative for example in any one of claims 1-10 and 11. See MPEP § 608.01(n).

9. Claim 1 is objected to because in claim 1, the term "comprise" is an open-ended language. It is recommended that applicants use "consisting of" instead of "comprise" in claim 1 or elsewhere in the claims.

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10. Claim 1 is objected to because of the recitation of "general formula" at pages 12 and 14. A compound should be specific and not general. It is recommended that applicants delete "general" from claim 1 or elsewhere in the claims to overcome this objection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahsay Habte whose telephone number is (571) 272-0667. The examiner can normally be reached on M-F (9:00AM- 5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Kahsay Habte
Primary Examiner
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A handwritten signature in black ink, appearing to read 'Kahsay Habte', is positioned to the right of the printed name and title.

November 29, 2006